

Appleby Archaeology Group    November 2005

Those who braved the wet weather to attend the November meeting of Appleby Archaeology were informed and entertained as Alice Palmer spoke about the *Gunpowder Industry in Lakeland*. She explained that her research was primarily from documents and that there was limited archaeological evidence although English Heritage were currently investigating the physical remains of the industry in Cumbria.

She outlined the history of gunpowder before speaking of the industry in Lakeland and of her research into the mill at Low Wood.

Gun powder is made from charcoal, saltpetre and sulphur. The Chinese knew of the mixture's incendiary properties from the 9th century and this knowledge was acquired by the Arabs in the 11th century and brought to Europe two centuries later. The English army first used gunpowder at the Battle of Crecy in 1346. Demand increased with the threat of war from Spain in the 16th century and later from the French. Factories tended to be in the south around Bristol, London and in Suffolk.

In the late 18th century Cumbria became a centre for production of explosives for use in its many mines and stone quarries. Powder was also produced for military and sporting practices. At one stage there were seven powder manufacturers in the south east of the county, where there were fast flowing rivers to provide water power and a plentiful supply of coppiced woodland for charcoal. The sea was the commercial route for the import of saltpetre from India and sulphur from Sicily and for the export of gunpowder. The Leven and Kent estuaries were accessible to shipping and near to Liverpool. The first mill was opened by John Wakefield at Sedgwick in 1764 and the last to open was the Black Beck mill in 1860. Production continued until the 1930s, but had declined sharply with the decline in mining and the development of new explosives in the early 20th century.

Miss Palmer then spoke of her research covering the first ten years of manufacturing at Low Wood, which opened in 1789. Her source material had included business letters, accounts and other documents. The founders were, Christopher Wilson, a Quaker banker from Kendal and the driving force, James King, from Liverpool with a background in accountancy, Daye Barker, a

manufacturing and technical expert and Capt James Fayer, a privateer well known on the Gold Coast of Africa..

The mill manufactured sporting powder for landowners and game keepers, blasting powder for the mines and quarries and military powder, a substantial amount of which was sent to Africa as part of the triangular slave trade. This involved the export of guns and powder to West Africa for use in the tribal wars, the capture and transfer of slaves to the West Indies and finally the import from the West Indies of sugar and other luxury goods. Britain abolished the slave trade in 1807. It appears that those at Low Wood were aware that the trade would be prohibited but saw their chance to make money and took it. They started with a capital of £1200 and in the first 10 years had made a profit of over one hundred per cent.

The gunpowder industry survived abolition and with increasing industrialisation demand grew. Low Wood prospered in the 19th century supplying a number of industries including quarrying, lead mining at Dufton, coalmining in Lancashire and Iron working in Wales. In 1882 it was taken over by Wakefield.

Health and safety was an issue in the 19th century and the records tell us that there were no deaths at Low Wood in the first ten years but there are records of how burns were treated. The risk of accidental explosions was ever present and precautions were taken. The employees wore leather clothing and to minimise the risk of sparks there were no nails in boots and the horses were shod with copper. One reason that so little remains to be seen today is that, when the mills finally closed and the buildings were demolished, they were fired to remove all traces of gunpowder.

Throughout the entertaining talk Miss Palmer gave details that made the audience feel not only that they had learned about gunpowder manufacture but that they knew the people involved.

The next meeting will be on the Tuesday 13th December at 7.30pm, in the Supper Room Market Hall Appleby, when Dot Brums from the Museum of Lancashire will talk on *The Portable Antiquities Scheme*. Bring your artefacts to be identified.

PHR21/1105